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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,775	07/21/2003	Chi-Hsiang Kuo	251706-1030	6780
24504	7590	03/08/2006	EXAMINER	
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948			LAMB, CHRISTOPHER RAY	
			ART UNIT	PAPER NUMBER
			2656	

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/624,775

Applicant(s)

KUO, CHI-HSIANG

Examiner

Christopher R. Lamb

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1, 2 and 6-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-5 and 9-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species: Species I, using a tracking error signal, and Species II, using a memory capacity. The species are independent or distinct because they can function separately, do not require one another, and independently solve the same problem.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 5 and 13-20 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species.

MPEP § 809.02(a).

2. During a telephone conversation with Dan McClure on February 24th, 2006 a provisional election was made without traverse to prosecute the invention of Species II, claims 3-4 and 9-12. Affirmation of this election must be made by applicant in replying

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to this Office action. Claims 1-2 and 6-8 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

4. Claims 15-19 objected to because of the following informalities: minor grammatical errors. Claims 15 and 19 should read "a CD laser beam." Claims 16 and 18 should read "a DVD laser beam." Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 5, 9-10, and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirose (U.S. Patent 6,411,577).

Regarding claim 5, Hirose discloses a method of selecting laser beam in an optical disk drive (column 1, lines 44-51), wherein either a first laser beam or a second laser beam is selected to read data from an optical disk (column 1, lines 44-51), the method comprising the steps of:

using the first laser beam to read the optical disk to generate a first testing result (column 1, line 61 to column 2, line 13);

determining if the first testing result is normal (column 8, lines 34-36);

and using the first laser beam to read data from the optical disk if the first testing result is normal (column 8, lines 34-36), and using the second laser beam to read data from the optical disk if the first testing result is abnormal (Fig. 6, step S22).

Regarding claim 9, in the method of Hirose the first testing result comprises a memory capacity of the optical disk (column 1, line 61 to column 2, line 13; Hirose specifically refers to obtaining the recording density; but obtaining the recording density inherently obtains the memory capacity and vice versa).

Regarding claim 10, in the method of Hirose the step of determining if the first testing result is normal further comprises: determining if the memory capacity is not larger than a standard memory capacity (column 8, lines 31-34).

Regarding claim 17, in the method of Hirose the wavelength of the second laser beam is larger than the wavelength of the first laser beam (in Fig. 6, it can be seen that the 650 nm laser is operating during the density count, making it the first laser beam. The other laser beam, from the diagram, has a larger wavelength at 780 nm).

Regarding claim 18, in Hirose the first laser beam is a DVD laser beam (that it is 650 nm is apparent from Fig. 6; in column 1, lines 26-37 that is equated to a DVD laser beam).

Regarding claim 19, in the method of Hirose the second laser beam is a CD laser beam (that it is 780 nm is apparent from Fig. 6; in column 1, lines 26-37 that is equated to a CD laser beam).

Regarding claim 20, in the method of Hirose the optical disk drive is capable of reading CD and DVD optical disks (column 1, lines 38-43).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3-4 and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirose.

Regarding claim 3, Hirose discloses a method of selecting laser beam in an optical disk drive (column 1, lines 44-51), wherein either CD laser beam or DVD laser beam is selected to read data from an optical disk (column 1, lines 30-37), the method comprising the steps of:

using a laser beam to illuminate the optical disk to obtain a memory capacity of the optical disk (column 1, line 60 to column 2, line 13; Hirose specifically refers to obtaining the recording density of the optical disk, but obtaining the recording density inherently obtains the memory capacity and vice versa);

determining if the memory capacity is not larger than a standard memory capacity (column 8, lines 31-34; where again density is equivalent to capacity); and

using the CD laser beam to read data from the optical disk if the memory capacity is not larger than the standard capacity (column 8, lines 31-34), and

using the DVD laser beam to read data from the optical disk if the memory capacity is larger than the standard capacity (column 8, lines 34-39).

Hirose does not disclose wherein the laser beam used to illuminate the optical disk to obtain a memory capacity of the optical disk is a CD laser beam (it is instead a DVD laser beam).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hirose to include using a CD laser beam to illuminate the optical disk to obtain a memory capacity of the optical disk.

The motivation would have been to more quickly begin reading CDs (in column 9, lines 11-25, Hirose discloses the steps that must be implemented to switch between the DVD laser and the CD laser. The time to conduct these operations could be avoided if the CD laser beam is used to obtain the memory capacity, speeding up CD access time at the expense of DVD access time).

Regarding claim 4, in the method of Hirose, after the step of determining if the memory capacity is not larger than the standard capacity, the method further comprises:

using the DVD laser beam to read the optical disk (Fig. 7; the DVD laser is used to look for a code on the disk) and generate a tracking error signal (in Fig. 7 the tracking servo is activated at step S16. This automatically includes generating a tracking error signal: column 6, lines 44-57) if the memory capacity is larger than the standard capacity (from Fig. 6, Fig. 7 is only reached if the memory capacity is larger than the standard);

determining if the tracking error signal is correct (column 6, lines 44-57);

and using the DVD laser beam to read data from the optical disk if the tracking error signal is correct (step S17 in Fig. 7), and ending the method if the tracking error signal is incorrect (operation is stopped if the error is generated: column 6, lines 48-50).

Regarding claim 11, Hirose discloses a method of selecting a laser beam in an optical disk drive as discussed in the rejection of claim 10 above.

Hirose discloses wherein the second laser beam is used to read data from the optical disk if the memory capacity is not larger than the standard capacity (Fig. 6, step S22; it identifies it as a CD, so the CD laser beam is used).

Hirose does not disclose "wherein the first laser beam is used to read data from the optical disk if the memory capacity is not larger than the standard capacity."

It would have been obvious to one of ordinary skill in the art to modify Hirose to include wherein the first laser beam is used to read data from the optical disk if the memory capacity is not larger than a standard capacity.

The motivation would have been to more quickly begin reading CDs (as discussed in the rejection of claim 4 above; if the CD laser is used to obtain the memory capacity it would mean that the system would not have to be switched between lasers to read a CD after the memory capacity is obtained. Since the CD laser is used to obtain the memory capacity, it becomes the first laser in the applicant's terminology, and the first laser beam would be used to read data from the optical disk if the memory capacity is not larger than the standard capacity).

Regarding claim 12, it is met by the modification to Hirose discussed in claim 11: the second laser beam is now the DVD laser, and thus the second laser beam is used

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to read data from the optical disk if the memory capacity is larger than the standard capacity (column 8, lines 34-36).

Regarding claim 13, it is met by the modification to Hirose discussed in claim 11. Specifically, Hirose discloses wherein the step of using the second laser beam to read the optical disk, if the first testing result is abnormal (in Fig. 6, step 15, if the result is abnormal it proceeds to Fig. 7, using the DVD, or second, laser), further comprises:

using the second laser beam to read the optical disk and generate a second tracking error signal (the tracking servo is activated at step S16. This automatically includes generating a tracking error signal: column 6, lines 44-57);

determining if the second tracking error signal is correct (column 6, lines 44-57);

and using the second laser beam to read data from the optical disk if the second tracking error signal is correct (step S17 in Fig. 7), and ending the method if the second tracking error signal is incorrect (operation is stopped if the error is generated: column 6, lines 48-50).

Regarding claim 14, in the modification of Hirose discussed in the rejection of claim 11, the wavelength of the second laser beam (the DVD laser beam) is smaller than the wavelength of the first laser beam (the CD laser beam; their wavelengths are given in column 1, lines 26-37).

Regarding claim 15, in the modification of Hirose discussed in the rejection of claim 11, the first laser beam is a CD laser beam.

Regarding claim 16, in the modification of Hirose discussed in the rejection of claim 11, the second laser beam is a DVD laser beam.

Conclusion

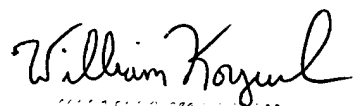
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shim (U.S. 2002/0085466 A1) and Iida et al. (US 2002/0027848 A1) discloses reading parameters from the disk to determine the disk type. Kurobe et al. (U.S. 2002/0131350 A1) discloses reading the memory capacity from the disk to adjust recording parameters.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lamb whose telephone number is (572) 272-5264. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CRL 3/2/06


William Korzuch
Supervisor